ABSTRACT OF THE DISCLOSURE

A system and method for implementing a redundant data storage architecture. accordance with one aspect of the claimed invention, the system includes a multiprocessor system comprising a plurality of processor modules, and a non-volatile storage memory configuration (NVS). The plurality of processor modules include a software management processor that is coupled to the NVS. The multiprocessor system also comprises a means for uploading and downloading system software and data between the processor modules and the NVS, whereby only the software management processor has read or write access to the NVS. In accordance with another aspect of the claimed invention, the method for implementing a redundant data storage architecture includes managing system software in a multiprocessor system having a plurality of processor modules and a plurality of non-volatile storage devices. A redundant copy of the system software is stored in each non-volatile storage device, and read and write access to the plurality of non-volatile storage devices is restricted to a software management processor. The system software is then loaded to the plurality of processor modules by retrieving the system software with the software management processor, and then loading the system software through the software management processor to the plurality of processor modules.